

Remarks

Reconsideration of this application as amended is respectfully requested.

Status of The Claims

Claims 47-51 stand rejected under 35 U.S.C. §102(b) in view of "CAPTCHA: Using Hard AI Problems for Security" by von Ahn, et al. ("von Ahn").

Claim 52-64 stand rejected under 35 U.S.C. §103(a) in view of von Ahn and U.S. Patent No. 5,839,902 of Wood ("Wood").

Claims 47-64 stand rejected under 35 U.S.C. §101.

Claims 48-50 and 52-62 stand rejected under 35 U.S.C. §112, second paragraph.

Claims 65-70 are withdrawn from consideration.

One-for-One Replacement Claims

Claims 47-51 drawn to the basic limitation of using a response time test have been replaced one for one with new claims 71-75, respectively, and claims 52-64 drawn to the basic limitation of using a common sense reasoning test have been replaced with new claims 76-88, respectively.

New claims 71-75 overcome a section 102 rejection by clarifying that a fast response indicates a program rather than a human being and include limitations to overcome a section 101 rejection and a section 112, second paragraph rejection.

New claims 76-88 overcome a section 112, second paragraph rejection because they "test human knowledge regarding a capability of the object" as suggested by the examiner. New claims 76-88 also include language to overcome section 101 and section 103 rejections.

Election/Restriction

Applicant hereby affirms election of invention I encompassing claims 47-64 now new claims 71-88.

Section 112, Second Paragraph, Rejection

The examiner has stated that the term "common sense" in claims 48-50 and 52-62 renders those claims indefinite. In response, applicant has offered new claims 72-88 to overcome this rejection. New claims 72-88 do not use the term "common sense" and instead use the term "human knowledge regarding a capability of the object" in accordance with the suggestions of the examiner. (See page 13, middle of page, Office Action, 12-24-09).

Section 102 Rejection In View of von Ahn

New claims 71-75 include the limitation of determining that an originator of an access to a computer-based system is a computer-based program if a time spent by the originator in answering a question is too fast for a human. It is submitted that *von Ahn* does not teach using a fast response time to detect a computer-based program as claimed in new claims 71-75.

The examiner has stated that *von Ahn* teaches that CAPTCHAs are designed to be solvable by humans in a relatively short/reasonable amount of time but not solvable by computers in a reasonable amount of time. (See pages 2-3, Office Action, 12-24-09). If so, it means that a fast response to a CAPTCHA indicates a human which is directly opposite to applicant's new claims 71-75 which recite that a fast response indicates a program.

Section 103 Rejection In View of von Ahn and Wood

It is respectfully submitted that *von Ahn* and *Wood* do not teach or suggest distinguishing a human from a computer program by testing human knowledge regarding a capability of the object as claimed in new claims 76-88. The examiner has acknowledged that *von Ahn* does not teach such a limitation (See page 5, top of page, Office Action, 12-24-09). *Wood* discloses a children's toy that teaches, i.e. imparts knowledge, regarding a capability of an object rather than test such knowledge as claimed in new claims 76-88. (See *Wood*, col. 5, lines 5-20, the speaker 29, a piece of hardware, states a fact corresponding to the icon 44 so the child can learn the fact).

The examiner has argued that it would have been obvious to combine the questions about displayed objects used in the teaching toy of *Wood* into the CAPTCHAs of *von Ahn* because such a combination would create superior CAPTCHAs for meeting *von Ahn*'s stated goal of telling humans and computer apart. (See pages 5-6, Office Action, 12-24-09).

It is respectfully submitted, however, that *von Ahn* teaches away from incorporating questions about displayed objects into a CAPTCHA as argued by the examiner. For example, *von Ahn* mulls the possibility of incorporating text objects (paragraphs from a secret book database or text generated by coded algorithms) and questions about the text objects (whether the paragraphs make sense) but then states emphatically that such a combination cannot be used in a CAPTCHA because *von Ahn* argues it would make the CAPTCHA vulnerable to defeat by an adversary who obtains knowledge of the objects. (See page 300 of *von Ahn* section entitled Who Knows What?, second paragraph). *von Ahn* emphatically states "*We do not allow CAPTCHAs to base their security in the secrecy of a database or a piece of code.*" (See page 300 of *von Ahn* section entitled Who Knows What?, second paragraph) (emphasis original).

Section 101 Rejection

The examiner has stated that claims 47-64 fail the machine-or-transformation test set forth in the CAFC's decision in In re Bilski ("*Bilski*"). The Supreme Court at the time of this response is considering *Bilski* but the examiner has observed that *Bilski* rests on several Supreme Court decisions banning patents on laws of nature, natural phenomena, abstract ideas, mental processes, and mathematical algorithms. It is respectfully submitted that new claims 71-88 do not recite laws of nature, natural phenomena, abstract ideas, mental processes, or mathematical algorithms.

New claims 71-88 do not recite laws of nature. A method for determining whether an originator of an access to a computer-based system is a human being or a computer-based program imitating a human being is not a law of nature because computer-based systems and programs implemented on them do not exist in nature.

New claims 71-88 do not recite natural phenomena because computer-based systems do not occur in nature.

New claims 71-88 do not recite abstract ideas because determining whether an originator of an access to a computer-based system is a human being or a computer-based program imitating a human being is not an abstract idea. Any service provider who has had their servers and power systems loaded down with attacks by bots can attest to that.

New claims 71-88 do not recite mental processes because the steps recited in new claims 71-88 of transmitting and receiving computer-based messages could not be done within the mind of a human being.

New claims 71-88 do not recite mathematical algorithms for the same reason they do not recite mental processes.

The examiner has also observed with respect to the "machine" part of the machine-or-transformation test that *Bilski* requires meaningful limits on a claims scope over and above

insignificant extra-solution activity. It is respectfully submitted that none of the machine limitations recited in new claims 71-88 are meaningless or insignificant. A computer-based system as recited in new claims 71-88 is not a meaningless or insignificant limitation but is instead the thing being protected by applicant's invention. The machine steps of generating and transmitting and receiving computer-based messages in new claims 71-88 are not meaningless or insignificant but are instead the means by which access to a computer-based system is protected.

Conclusion

It is respectfully submitted that in view of the amendments and arguments set forth above, the applicable objections and rejections have been overcome.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 50-4743 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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